UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
	10/615,471	TSIEN ET AL.
Office Action Summary	Examiner	Art Unit	
	Allahyar Kasraian	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 August 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>29 August 2007</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement submitted on Aug. 29, 2007 has been

considered by the Examiner and made of record in the application file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

This application currently names joint inventors. In considering

patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that

the subject matter of the various claims was commonly owned at the time any

inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor

and invention dates of each claim that was not commonly owned at the time a

later invention was made in order for the Examiner to consider the applicability of

35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35

U.S.C. 103(a).

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1,

148 USPQ 459 (1966), that are applied for establishing a background for

determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
       obviousness or nonobviousness.

3. **Claims 1 and 4** are rejected under 35 U.S.C. 103(a) as being unpatentable

    over **Keyhole et al. (U.S. Patent # 5,276,908)** (hereafter Keyhole) in view of

    Raff (U.S. Patent # 6,785,514 B1).

Consider **claim 1**, Keyhole discloses clearly show and discloses a

method, comprising: scanning available channels (see FIG. 3a, 3b and lines

3-5 of column 7 where it says, "In operation, when a call set-up is attempted

between the base station 30a and the subscriber terminal 30b, all available

traffic channels are scanned."); measuring a received signal power level for

the channels scanned in said scanning; comparing the measured received

signal power level to a threshold value to provide a difference; if the

difference is greater than a predetermined value, then indicating the channel

as occupied, otherwise indicating the channel as available (see lines 11-17 of

column 7 where it says, "The power level of each traffic channel is detected

by the power detector circuit 36a. If a scanned traffic channel has a power

level below a first predetermined threshold, it is selected as a useable traffic

channel and stored in memory 38a. If the scanned traffic channel has a power level above a second predetermined threshold, it is considered unusable";

and lines 22-27 of column 7 for channel selection);

However, Keyhole fails to discloses determining a larger gap between available channels; and selecting a channel available within the larger gap.

In the same field of endeavor, Raff discloses determining a larger gap between available channels; and selecting a channel available within the larger gap (FIG. 3 lines 11-15 of column 4).

Therefore, it would have been obvious to a person or ordinary skills in the art at the time the invention was made to incorporate channel selection by choosing a channel(s) with larger frequency spacing as taught by Raff to the channel selecting method and apparatus shown by Keyhole disclosed for purpose of reducing interference as a guard band between frequency channels.

Consider **claim 4**, Keyhole et al., as modified by Raff disclose the claimed invention **as applied to claim 1 above** except in the event there are two or more larger gaps, selecting a larger gap at a higher frequency, wherein said selecting includes selecting a channel within the larger gap at a higher frequency. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to select a channel at higher frequency when there are two or more larger gaps presented. One of ordinary skill in the

art would have expected applicant's invention to perform equally well with either selecting a channel at higher frequency or lower frequency when there are two or more larger gaps between channels presented because choosing either higher and lower frequency is a matter of Design Choice for the channels within close range of frequencies. Furthermore, applicant has not disclosed that selecting a channel at higher frequency provides an advantage, is used for a particular purpose, or solves a stated problem.

4. **Claims 3 and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Keyhole et al. (U.S. Patent # 5,276,908)** (hereafter Keyhole) in view of **Raff (U.S. Patent # 6,785,514 B1)** further in view of **Frixon (U.S. Patent # 5,138,456)**.

Consider **claim 3 as applied to claim 1 above**, Keyhole as modified by Raff disclose the claim invention except determining said selecting includes selecting a channel at a midpoint within the larger gap.

In the same field of endeavor, Frixon clearly shows and discloses a unit to select a frequency in the midpoint of the largest gap (see FIG.1 Calculating unit 10, and lines 38-44 of column 4 where it says, "The microprocessor of the calculating unit is programmed to select an emission frequency located substantially in the middle of the largest interval separating two channels already used and a frequency which does not correspond to a

multiple or a submultiple of one of the frequencies occupied in order not to disturb the latter")

Therefore, it would have been obvious to a person with the ordinary skills in art to apply the unit for finding the midpoint frequency between the largest gap as taught by Frixon to the channel selecting method and apparatus shown by Keyhole as modified by Raff for purpose of sharing frequency channels to within a communication network. The proper motivation is to manage frequency channel resources.

Consider **claim 5**, Keyhole as modified by Raff further modified by Frixon disclose the claimed invention **as applied to claim 1 above** except in the event there are two or more larger gaps, selecting a larger gap at a higher frequency, wherein said selecting includes selecting a channel within a midpoint of the larger gap at a higher frequency.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to select a channel within a midpoint of the larger gap at a higher frequency when there are two or more larger gaps presented. One of ordinary skill in the art would have expected applicant's invention to perform equally well with either selecting a channel within midpoint of the larger gap at higher frequency or lower frequency when there are two or more larger gaps between channels presented because choosing either higher and lower frequency is a matter of Design Choice for the

channels with close range of frequencies. Furthermore, applicant has not

disclosed that selecting a channel at higher frequency provides an advantage,

is used for a particular purpose, or solves a stated problem.

5. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over

Keyhole et al. (U.S. Patent # 5,276,908) (hereafter Keyhole) in view of **Raff**

(U.S. Patent # 6,785,514 B1) further in view of **Lopez (U.S. Patent #**

7,177,291 B1)

Consider **claim 6 as applied to claim 1 above**, Keyhole as modified

by Raff disclose the claim invention except determining whether a collision is

detected at the channel selected in said selecting, and, if a collision is

detected, selecting a new channel by executing the method again at said

scanning.

In the same field of endeavor, Lopez clearly shows and discloses a

method and apparatus for determining collision when selecting a channel,

and in case of detecting collision in the selected channel, requesting a new

channel and suggesting a new transmission channel (see FIG. 2 and the

summary of the invention in lines 46-67 of column 1 and lines 1-3 of column 2

where it particularly says, "in case of collision, transmission of a change of

channel request to the first network...the change of channel request

comprises... an identifier of... the number of times that request has been sent,

a suggestion of transmission channel for the first network")

Therefore, it would have been obvious to a person with the ordinary

skills in the art to apply the method and apparatus for detecting a collision in a

selected channel and then requesting a new channel taught by Lopez in the

channel selection method suggested by Keyhole as modified by Raff for

purpose of transmitting data or signal on the best pre-examined available

carrier channel. The proper motivation is to manage frequency channel

resources.

6. **Claims 7 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable

over **Choi et al. (U.S. Patent # 7,206,840 B2)** (hereafter Choi) in view of **Raff**

(U.S. Patent # 6,785,514 B1).

Consider **claim 7**, Choi clearly show and disclose an article comprising

a storage medium having stored thereon instructions that, when executed by

a computing platform, result in dynamic frequency selection in a wireless local

area network by (see FIG. 2 and lines 64-67 of column 3 where it says, "Both

the AP and STA may include ... a CPU 22... a storage module 28, a random

access memory (RAM) 30, a read-only memory (32)...", and lines 7-12 of

column 4 where it says, "The CPU 22 operates under the control of an

operating system contained in the ROM 32 and utilizes RAM 30 to perform

the frequency selection within a wireless local area network (WLAN), by

enabling the AP to provide a new channel or wireless link for all stations

(STAs) associated with its BSS."): scanning available channels (see FIG. 3

step 100: monitoring of channels); measuring a received signal power level

for the channels scanned in said scanning; comparing the measured received

signal power level to a threshold value to provide a difference; if the

difference is greater than a predetermined value, then indicating the channel

as occupied (see lines 23-34 of column 6 where it says, "the measurement of

noise or interference level by 802.11 non-compliant devices...is detected and

reported to the AP. The existence of such a device is detectable not as a

BSS, but as a co-channel interference. The STA shall keep track of the CCA

busy periods in order to report back the fractional period during which the

CCA was busy out of the whole measurement duration. Note that CCA shall

be indicated busy by (1) the start of a valid OFDM transmission at a receiver

level >= -82 dBm with a probability >90% within 4 usec, and (2) any signal

above 62 dBm."), otherwise indicating the channel as available (see FIG. 3

step 200: Selecting a New Channel By AP, and lines 11-13 of abstract where

it says, "selecting one of the candidate channels based on the channel quality

report for use in communication between the AP and the plurality of STAs");

However, Choi fails to disclose determining a larger gap between

available channels; and selecting a channel within the larger gap.

In the same field of endeavor, Raff disclose determining a larger gap between available channels; and selecting a channel within the larger gap (FIG. 3 lines 11-15 of column 4).

Therefore, it would have been obvious to a person or ordinary skills in the art at the time the invention was made to incorporate channel selection by choosing a channel(s) with larger frequency spacing as taught by Raff to the channel selecting method and apparatus shown by Choi disclosed for purpose of reducing interference as a guard band between frequency channels.

Consider **claim 10**, Choi as modified by Raff disclose the claimed invention **as applied to claim 7 above** except in the event there are two or more larger gaps, selecting a larger gap at a higher frequency, wherein said selecting includes selecting a channel within the larger gap at a higher frequency.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to select a channel at higher frequency when there are two or more larger gaps presented. One of ordinary skill in the art, would have expected applicant's invention to perform equally well with either selecting a channel at higher frequency or lower frequency when there are two or more larger gaps between channels presented because choosing either higher and lower frequency is a matter of Design Choice for the

channels within close range of frequencies. Furthermore, applicant has not

disclosed that selecting a channel at higher frequency provides an advantage,

is used for a particular purpose, or solves a stated problem.

7. **Claims 9 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable

over **Choi et al. (U.S. Patent # 7,206,840 B2)** (hereafter Choi) in view of **Raff**

(U.S. Patent # 6,785,514 B1) further in view of **Frixon (U.S. Patent #**

5,138,456).

Consider **claim 9 as applied to claim 7 above**, Choi disclose the

claim invention except said selecting includes selecting a channel at a

midpoint within the larger gap.

In the same field of endeavor, Frixon clearly shows and discloses a

unit to select a frequency in the midpoint of the largest gap (see FIG.1

Calculating unit 10, and lines 38-44 of column 4 where it says, "The

microprocessor of the calculating unit is programmed to select an emission

frequency located substantially in the middle of the largest interval separating

two channels already used and a frequency which does not correspond to a

multiple or a submultiple of one of the frequencies occupied in order not to

disturb the latter")

Therefore, it would have been obvious to a person with the ordinary

skills in art to apply the unit for finding the midpoint frequency between the

largest gap as taught by Frixon to the channel selecting method and apparatus shown by Choi as modified by Raff for purpose of sharing frequency channels to within a communication network. The proper motivation is to manage frequency channel resources.

Consider **claim 11**, Choi as modified by Raff further modified by Frixon disclose the claimed invention **as applied to claim 7 above** except in the event there are two or more larger gaps, selecting a larger gap at a higher frequency, wherein said selecting includes selecting a channel within a midpoint of the larger gap at a higher frequency.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to select a channel within a midpoint of the larger gap at a higher frequency when there are two or more larger gaps presented. One of ordinary skill in the art would have expected Applicant's invention to perform equally well with either selecting a channel within midpoint of the larger gap at higher frequency or lower frequency when there are two or more larger gaps between channels presented because choosing either higher and lower frequency is the matter of design choice for the channels within close range of frequencies. Furthermore, applicant has not disclosed that selecting a channel at higher frequency provides an advantage, is used for a particular purpose, or solves a stated problem.

8. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Choi et al. (U.S. Patent # 7,206,840 B2)** (hereafter Choi) in view of **Raff (U.S. Patent # 6,785,514 B1)** further in view of **Lopez (U.S. Patent # 7,177,291 B1)**.

Consider **claim 12 as applied to claim 7 above**, Choi as modified by Raff disclose the claim invention except determining whether a collision is detected at the channel selected in said selecting, and, if a collision is detected, selecting a new channel by executing the method again at said scanning.

In the same field of endeavor, Lopez clearly shows and discloses a method and apparatus for determining collision when selecting a channel, and in case of detecting collision in the selected channel, requesting a new channel and suggesting a new transmission channel (see FIG. 2 and the summary of the invention in lines 46-67 of column 1 and lines 1-3 of column 2 where it particularly says, "in case of collision, transmission of a change of channel request to the first network... the change of channel request comprises... an identifier of... the number of times that request has been sent, a suggestion of transmission channel for the first network")

Therefore, it would have been obvious to a person with the ordinary skills in the art to apply the method and apparatus for detecting a collision in a selected channel and then requesting a new channel taught by Lopez in the

channel selection method suggested by Choi as modified by Raff for purpose

of transmitting data or signal on the best pre-examined available carrier

channel. The proper motivation is to manage frequency channel resources.

9. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Choi**

   et al. (U.S. Patent # 7,206,840) (hereafter Choi) in view of **Sugar et al. (U.S.**

   Patent # 7,248,604 B2) (hereafter Sugar).

   Consider **claim 13**, Choi clearly shows and disclose an apparatus

comprising a transceiver (see FIG. 2 transmitter/receiver 24); and a baseband

processor (considered as CPU) wherein is capable of dynamically selecting a

frequency on which to communicate via said transceiver on a wireless local

area network (see FIG. 2 and lines 64-67 of column 3 where it says, "Both the

AP and STA may include ... a CPU 22, a transmitter/receiver 24, ... a random

access memory (RAM) 30, a read-only memory (32)", and lines 7-12 of

column 4 where it says, "The CPU 22 operates under the control of an

operating system contained in the ROM 32 and utilizes RAM 30 to perform

the frequency selection within a wireless local area network (WLAN), by

enabling the AP to provide a new channel or wireless link for all stations

(STAs) associated with its BSS.") by: scanning available channels (see FIG. 3

step 100: monitoring of channels); measuring a received signal power level

for the channels scanned in said scanning; comparing the measured received

signal power level to a threshold value to provide a difference; if the

difference is greater than a predetermined value, then indicating the channel

as occupied (see lines 23-34 of column 6 where it says, "the measurement of

noise or interference level by 802.11 non-compliant devices...is detected and

reported to the AP. The existence of such a device is detectable not as a

BSS, but as a co-channel interference. The STA shall keep track of the CCA

busy periods in order to report back the fractional period during which the

CCA was busy out of the whole measurement duration. Note that CCA shall

be indicated busy by (1) the start of a valid OFDM transmission at a receiver

level >= -82 dBm with a probability >90% within 4 usec, and (2) any signal

above 62 dBm."), otherwise indicating the channel as available; and selecting

a channel from a channel indicated as available (see FIG. 3 step 200:

Selecting a New Channel By AP, and lines 11-13 of abstract where it says,

"selecting one of the candidate channels based on the channel quality report

for use in communication between the AP and the plurality of STAs")

However, Choi fails to disclose explicitly the CPU is a baseband

processor or include a baseband processor.

In the same field of endeavor, Sugar clearly show and disclose an

apparatus comprising a transceiver; and a baseband processor to couple to

said transceiver (see FIG. 3 and lines 50-62 of column 3 where it says, "FIG.

3 illustrates an exemplary AP 110 and a STA 120. In general, the AP 110

comprises a control processor 112, a baseband signal processor 114 and a

radio transceiver 116 (it should be understood that the control processor 112

and the baseband signal processor 114 may be implemented on a single

processing device.) The AP 110 receives signals from, and transmits signals

to, the STAs 120 via one or more antennas 118. The processor 112 routes

the received data from the STAs, and also directs outgoing data to the

appropriate STA. In addition, the processor 112 in the AP 110 may execute a

network throughput control process, described hereinafter, to control the

average throughput on the WLAN 100.")

Therefore, it would have been obvious to a person with the ordinary

skills in the art to include a baseband processor in wireless communications

apparatus taught by Sugar in the CPU of wireless apparatus disclosed by

Choi for purpose of choosing wireless channels and processing the baseband

signals in a wireless network. The proper motivation is to manage frequency

channel resources.

10. **Claims 14-16** are rejected under 35 U.S.C. 103(a) as being unpatentable

over **Choi et al. (U.S. Patent # 7,206,840)** (hereafter Choi) in view of **Sugar**

et al. (U.S. Patent # 7,248,604 B2) (hereafter Sugar) and further in view of

Frixon (U.S. Patent # 5,138,456).

Consider **claim 14 as applied to claim 13 above**, Choi as modified by

Sugar disclosed the claimed invention except said baseband processor is

further capable of dynamically selecting a frequency on which to communicate via said transceiver by determining a larger gap between available channels, wherein said selecting includes selecting a channel at a midpoint within the larger gap.

In the same field of endeavor, Frixon disclose selecting a frequency on which to communicate via said transceiver by determining a larger gap between available channels, wherein said selecting includes selecting a channel at a midpoint within the larger gap (lines 38-44 of column 4).

Therefore, it would have been obvious to a person with the ordinary skills in art to incorporate a unit for finding the midpoint frequency between the largest gap as taught by Frixon to the channel selecting method and apparatus shown by Choi as modified by Sugar for purpose of sharing frequency channels to within a communication network. The proper motivation is to manage frequency channel resources.

Consider **claims 15 and 16**, Choi as modified by Sugar further modified by Frixon disclose the claimed invention (as indicated with the same limitations in **claim 14**) **as applied to claim 13 above** except in the event there are two or more larger gaps, selecting a larger gap at a higher frequency, wherein said selecting includes selecting a channel within the larger gap at a higher frequency and wherein said selecting includes selecting a channel within a midpoint of the larger gap at a higher frequency.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to select a channel at higher frequency when there are two or more larger gaps presented. One of ordinary skill in the art, would have expected applicant's invention to perform equally well with either selecting a channel at higher frequency or lower frequency when there are two or more larger gaps between channels presented, or selecting a channel within midpoint of the larger gap at higher frequency or lower frequency when there are two or more larger gaps between channels presented because choosing either higher and lower frequency is a matter of Design Choice for the channels within close range of frequencies. Furthermore, applicant has not disclosed that selecting a channel at higher frequency provides an advantage, is used for a particular purpose, or solves a stated problem.

11. **Claim 17** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Choi et al. (U.S. Patent # 7,206,840)** (hereafter Choi) in view of **Sugar et al. (U.S. Patent # 7,248,604 B2)** (hereafter Sugar) and further in view of **Pope, Jr. et al. (U.S. Patent # 6,654,616 B1)** (hereafter Pope).

Consider **claim 17**, Choi as modified by Sugar disclose the claimed invention (as indicated with the same limitations in **claim 13**) except the apparatus comprises an omnidirectional antenna.

In the same field of endeavor, Pope clearly shows and discloses an omnidirectional antenna with a wireless local area transceiver (see FIG. 1, FIG. 2 and lines 29-36 of column 4 where it says, "Accordingly, antennas 13 and 14 may be respective bi-directional antennas, as are antennas 12A and 12B. Communication systems 10A and 10B are similar to one another and to communication system 10 of FIG. 1. Communication systems 10A are each configured with a directional high gain antenna 12A for outdoor use, and communication systems 10B are each configured with an omni-directional antenna 12B for indoor use.")

Therefore, it would have been obvious to a person with ordinary skills in the art to include an omnidirectional antenna as taught by Pope to the wireless local area network method and apparatus as displayed by Choi as modified by Sugar for purpose of transmitting/receiving signal with a better SNR gain in a wireless communication network. The proper motivation is to select the optimum frequency channels.

12. **Claim 18 as applied to claim 17**, is rejected for the same reason(s) as set forth in **claim 14**.

13. **Claims 19 and 20 as applied to claim 17**, are rejected for the same reason(s) as set forth in **claims 15 and 16**.

Response to Arguments

14. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

    a. Okubo (U.S. Patent Application Publication # 2004/0156334 A1) disclose Radio network system and radio communication control method.

    b. Stadelmeier et al. (U.S. Patent Application Publication # 2004/0157580 A1) disclose Method for operating an RLAN arrangement.

    c. Saunders (U.S. Patent # 5,909,649) disclose Space division multiple access radio communication system and method for allocating channels therein.

    d. Rao et al. (U.S. Patent # 6,990,087 B2) disclose Dynamic wireless resource utilization

    e. Akaiwa (U.S. Patent # 5,109,529) disclose Method of assigning frequency channel in mobile communications system.

    f. Oom et al. (U.S. Patent # 6,738,625 B1) disclose Rehoming and resource sharing in communications network.

    g. Abramov et al. (U.S. Patent # 7,162,273 B1) disclose Dynamically optimized smart antenna system.

h. Hasnsen et al. (U.S. Patent # 7,158,759 B2) disclose Dynamic

frequency selection in a wireless communication network.

i. Jacobson et al. (U.S. Patent # 7,213,197 B2) disclose Adaptive bit

loading with low density parity check forwarding error correction.

j. Toyoshima (U.S. Patent # 7,020,118 B2) disclose System and method

for activation of a wireless module.

16. Any response to this Office Action should be **faxed to** (571) 273-8300 **or**

mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

17. Any inquiry concerning this communication or earlier communications from

the Examiner should be directed to Allahyar Kasraian whose telephone

number is (571) 270-1772. The Examiner can normally be reached on

Monday-Thursday from 8:00 a.m. to 5:00 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the

Examiner's supervisor, Rafael Pérez-Gutiérrez can be reached on (571) 272-

7915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Allahyar Kasraian
A.K./ak
October 17, 2007

Rafael Perez-Gutierrez
Supervisory Patent Examiner
Technology Center 2600
Art Unit 2617

10/x/07